

Photometer 7100

The Photometer 7100 provides the complete range of test parameters in a waterproof instrument certified to IP67. Proven photometric technology and reagent systems provide dependable results to enable decisions on water quality to be made instantly and with confidence.

- Simple to use
- Designed for on-site analysis
- Full range of test parameters



Tablet reagents



Tubetests reagents

Ordering Information



PTR7100 **Photometer 7100 Benchtop Kit**

Instrument, 10 glass cuvettes, dilution tube/sample container, cuvette brush, 10 crush/stirring rods, lint free cloth, absorbent cloth, instrument instructions, Palintest method book. Supplied in a cardboard carton for shipping protection.



PTH7100 **Photometer 7100 Standard Kit**

Instrument and light cap, 8 glass cuvettes, dilution tube/sample container, 10 mL syringe, test tube brush, 10 crush/stirring rods, lint free cloths, instrument instructions, Palintest method book. Supplied in a protective case.

Technical Specification

Instrument Type	Dual light source photometer offering direct-reading of pre-programmed test calibrations, Absorbance and Transmittance
Wavelengths	450 nm, 500 nm, 550 nm, 570 nm, 600 nm, 650 nm
Accuracy	±1.0% T
Display	320 x 240 pixel LCD with backlight and contrast adjustment
User Interface	On screen prompts available in English, French, Spanish, Italian, German and Chinese (Simplified).
Size (W x L x H) and weight	150 x 250 x 70 mm, 975 g
Power Supply	3 x 1.5v 'AA' batteries (typically 40 hours), mains power via USB port
Memory Capacity	Up to 500 data sets.

Photometer Tablet Reagents

Photometer tablet reagents are available in two pack sizes. Starter Packs (PM codes) contain 50 tests plus any optional reagents or equipment needed. Replacement Packs (AP codes) contain reagents for 250 tests unless stated otherwise.



Test Name	Measurement Range	Starter Pack (50 tests)	Replacement Pack (up to 250 tests)
Alkalinity (Alkaphot M)	0 - 500 mg/L CaCO ₃	PM250	AP250
Alkalinity (Alkaphot P)	0 - 500 mg/L CaCO ₃	PM251	AP251
Total Alkalinity (Alkaphot)	0 - 500 mg/L CaCO ₃	PM188	AP188
Aluminium	0 - 0.5 mg/L Al	PM166	AP166
Ammonia	0 - 1.0 mg/L N	PM152	AP152
Bromine	0 - 10 mg/L Br ₂	PM060	AP060
Boron	0 - 2.5 mg/L B	PM190	AP190 (160 tests)
Calcium Hardness (Calcicol)	0 - 500 mg/L CaCO ₃	PM252	AP252
Chloride (Chloridol)	0 - 50,000 mg/L NaCl	PM268	AP268
Chlorine - Free (DPD 1)	0 - 5 mg/L Cl ₂	PM011	AP011
Chlorine - Free, extended range (DPD XF)	0 - 10 mg/L Cl ₂	PM013	AP013
Chlorine - Free, Combined & Total (DPD 1 & 3)	0 - 5 mg/L Cl ₂	PM031	AP031
Chlorine - Free, Combined & Total, extended range (DPD XF & XT)	0 - 10 mg/L Cl ₂	PM033	AP033
Chlorine - Monochloramine (DPD 2, requires DPD 1)	0 - 5 mg/L Cl ₂	-	AP021
Chlorine - Total (DPD 4)	0 - 5 mg/L Cl ₂	PM041	AP041
Chlorine - Total (DPD 3 only)	0 - 5 mg/L Cl ₂	-	AP031/1
Chlorine - Total, extended range (DPD XT only)	0 - 10 mg/L Cl ₂	-	AP033/1
Chlorine HR	0 - 250 mg/L Cl ₂	PM162	AP162
Chlorine Dioxide and Chlorite (DPD method)	0 - 10 mg/L ClO ₂	PM052	AP052
Chlorine Dioxide LR (Lissamine Green B method)	0 - 2.5 mg/L ClO ₂	PM064	AP064
Chlorine Dioxide HR (Lissamine Green B method)	2.5 - 20 mg/L ClO ₂	PM065	AP065
Chromium VI (Chromicol)	0 - 1.0 mg/L Cr	PM281	AP281
Colour	10 - 500 mg/L Pt Co (Hazen)	PM269	-
Copper - Free, Combined & Total (Coppercol)	0 - 5 mg/L Cu	PM186	AP186
Copper - Free	0 - 5 mg/L Cu	-	AP187
Cyanuric Acid	0 - 200 mg/L CYA	PM087	AP087
DEHA	0 - 500 ppb DEHA	PM275	AP275
Fluoride	0 - 1.5 mg/L F	PM179	AP179 (200 tests)
Hardness - Total (Hardicol)	0 - 500 mg/L CaCO ₃	PM254	AP254
Hydrazine	0 - 0.5 mg/L N ₂ H ₂	PM103 (30 tests)	AP103 (150 tests)
Hydrogen Peroxide LR	0 - 2 mg/L H ₂ O ₂	PM104	AP104
Hydrogen Peroxide HR	0 - 100 mg/L H ₂ O ₂	PM105	AP105

Test Name	Measurement Range	Starter Pack (50 tests)	Replacement Pack (250 tests)
Iron LR	0 - 1 mg/L Fe	-	AP155
Iron MR	0 - 5 mg/L Fe	PM292	AP292
Iron HR	0 - 10 mg/L Fe	PM156	AP156
Magnesium Hardness (Magnecol)	0 - 100 mg/L Mg	PM193	AP193
Manganese	0 - 0.03 mg/L Mn	PM173	AP173
Manganese HR	0 - 5 mg/L Mn	PM174	AP174
Molybdate LR	0 - 20 mg/L MoO ₄	PM258	AP258 (200 tests)
Molybdate HR	0 - 100 mg/L MoO ₄	PM175	AP175
Nickel (Nickeltest)	0 - 10 mg/L Ni	PM284	AP284 (200 tests)
Nitrate (Nitratetest)	0 - 20 mg/L N	PM163	AP163 (200 tests)
Nitrite (Nitricol)	0 - 0.5 mg/L N	PM109	AP109
Nitrite (Nitriphot)	0 - 1500 mg/L NaNO ₂	PM260	AP260
Organophosphonate (OP)	0 - 20 mg/L PO ₄	PM262	AP262
Ozone (DPD method)	0 - 2 mg/L O ₃	PM056	AP056
pH Phenol Red	pH 6.5 - 8.5	PM130	AP130
Phenol (Phenoltest)	0 - 5 mg/L C ₆ H ₅ OH	PM287	AP287 (200 tests)
PHMB (PHMB-PHOT)	0 - 100 mg/L active biocide	PM272	AP272
Phosphate LR	0 - 4 mg/L PO ₄	PM177	AP177 (200 tests)
Phosphate HR	0 - 100 mg/L PO ₄	PM114	AP114
Potassium	0 - 12 mg/L K	PM189	AP189
Silica	0 - 4 mg/L SiO ₂	PM181	AP181 (200 tests)
Silica HR	0 - 150 mg/L SiO ₂	PM290	AP290 (200 tests)
Sulfate	0 - 200 mg/L SO ₄	PM154	AP154
Sulfide	0 - 0.5 mg/L S	PM168	AP168 (200 tests)
Sulfite (Sulfitest)	0 - 500 mg/L Na ₂ SO ₃	PM266	AP266
Zinc	0 - 4 mg/L Zn	PM148	AP148



Photometer reagents are supplied in starter packs comprising consumables sufficient for testing 50 samples, or replacement packs of 200/250 tests. Test instructions are only supplied with starter packs, and can be downloaded from www.palintest.com

Photometer Tubetest Reagents

For ultimate convenience the Palintest range of Tubetest reagents offer pre-dispensed reagents for minimal handling. Each tubetest reagent is barcoded for ease of use in wastewater applications.

For a complete wastewater analysis system, use Palintest tubetests with any Palintest multiparameter photometer and heater block. Tubetest reagents are supplied in 16mm diameter tubes with each parameter often available in a wide variety of ranges to suit the application requirements.



Test Name	Measurement Range	Part Code (25 tests)
Chemical Oxygen Demand (COD) Mercury Free for Low Chloride Samples		
COD/150	0 - 150 mg/L O ₂	PL450
COD/400	0 - 400 mg/L O ₂	PL452
COD/1000	0 - 1000 mg/L O ₂	PL453
COD/2000	0 - 2000 mg/L O ₂	PL454
COD/20000	0 - 20000 mg/L O ₂	PL456
Chemical Oxygen Demand (COD) Containing Mercury for Moderate Chloride Samples		
COD/150/M	0 - 150 mg/L O ₂	PL460
COD/400/M	0 - 400 mg/L O ₂	PL462
COD/1000/M	0 - 1000 mg/L O ₂	PL463
COD/2000/M	0 - 2000 mg/L O ₂	PL464
COD/20000/M	0 - 20000 mg/L O ₂	PL466
Chemical Oxygen Demand (COD) Containing Mercury for High Chloride Samples		
COD/150/2M	0 - 150 mg/L O ₂	PL461
COD/1000/2M	0 - 1000 mg/L O ₂	PL468
COD/2000/2M	0 - 2000 mg/L O ₂	PL465
COD/20000/2M	0 - 20000 mg/L O ₂	PL467
Chemical Oxygen Demand (COD) Standard Solutions		
(COD Concentration)		
COD Standard Solution, 125 mL	80 mg/L	PL470
COD Standard Solution, 125 mL	250 mg/L	PL472
COD Standard Solution, 125 mL	800 mg/L	PL474
COD Standard Solution, 125 mL	10000 mg/L	PL476

Test Name	Measurement Range	Part Code (25 tests)
Chemical Oxygen Demand (COD) Nutrients		
Ammonia 15N, Nessler Method	0 - 15 mg/L N	PL420
Ammonia 50N, Nessler Method	0 - 50 mg/L N	PL424
Ammonia 100N, Nessler Method	0 - 100 mg/L N	PL425
Ammonia 12N/50N, Indophenol Method	0 - 12 mg/L N 0 - 50 mg/L N	PL400
Nitrate 30N	0 - 30 mg/L N 0 - 150 mg/L NO ₃	PL404
Total Nitrogen 30N (use with PL 404)	0 - 30 mg/L N	PL408
Phosphate 12P	0 - 12 mg/L P	PL412
Total Phosphorus 12P	0 - 12 mg/L P	PL416
Chemical Oxygen Demand (COD) Heavy Metals		
Chromium VI (Cr ⁶⁺)	0 - 10 mg/L Cr	PL440
Total Chromium	0 - 10 mg/L Cr	PL436
Copper	0 - 20 mg/L Cu	PL427
Iron	0 - 25 mg/L Fe	PL434
Nickel	0 - 20 mg/L Ni	PL430
Zinc	0 - 7 mg/L Zn 0 - 35 mg/L Zn	PL442

Code	Tubetests Accessories	
PT 589	COD Accessory Set 0 - 2000 mg/L O ₂	Contains Workplace Mat, 2 mL Pipettor Tips, Metal Tubetests Rack, Thermometer (-10°C to 200°C), Standard Tubetests Heater, Safety Screen (PT 590), anodized aluminium heater block, power lead
PT599	COD Accessory Set 0 - 20000 mg/L O ₂	
PT 590	Replacement safety screen for Standard Tubetests Heater	
PT 592 UK/EU/USA	Premium Tubetests Heater including integrated safety screen, anodized aluminium heater block, power lead. Available for compatibility with UK/EU/USA power leads.	

Other Liquid Reagents

Test Name	Measurement Range	Part Code (30 tests)	Part Code (1000 tests)
Dissolved Oxygen 0.8	0 - 0.8 mg/L O ₂	PL553	
Dissolved Oxygen 2.0	0 - 2.0 mg/L O ₂	PL503	
Dissolved Oxygen 20	0 - 20 mg/L O ₂	PL513	
Chlorine - Free (equivalent to DPD 1)	0 - 5 mg/L Cl ₂		AT015
Chlorine - Total (equivalent to DPD 3). Use in conjunction with AT 015	0 - 5 mg/L Cl ₂		AT035

Photometer Accessories

PT804	Photometer 7100/7500 Check Standards. Supplied in a storage case with certificate
PT595/5	Photometer Cuvettes (x5) - glass, with caps. 20 mm OD, 77 mm tall with 10 mL graduation
PT524/5	Round Test Tubes for Photometer, 10 mL plastic (pack of 5)
PT502	Crush/Stirring Rods - Pack of 10 crush/stirring rods
PT503	Nessler Tubes, 50 mL, glass (pair)
PT641	Measuring Cylinder, plastic, 10 mL
PT530	P/P 250 mL Graduated Bottle
PT512	Sample Container/Dilution Tube
PT516	Wash Bottle, 250 mL
PT518	Wash Bottle (for Deionised Water)
PT519	Sample Container, 50/10 mL plastic bottle
PT526	Sample Container, 20/10 mL plastic tube
PT500	De-Ion Pack (makes approximately 5 litres Deionised Water)
PT1250	Deionised Water, 500 mL
PT745	USB Power Supply Unit
PT746	USB Photometer-Computer/PSU Cable
PT361/62/65/69	Plastic Syringe (1 mL - PT 361), (2 mL - PT 362), (5 mL - PT 365), (10 mL - PT 369)
PT370 / 372	Plastic Syringe, Luer fitting (20 mL - PT 370), (50 mL - PT 372)
PT375	Dilution Syringe, x 10/100 (for use with PT 512)
PT376	Dilution Syringe, x 100/1000 (for use with PT 512)
PT606	Filter Holder, Luer, 2.5 cm dia
PT605	Filter 0.45µm membrane, 2.5 cm dia (Box of 50)
PT603	Filter Paper, GF/B, 2.5 cm dia (Pack of 50)
PT607	Filter Funnel, 7 cm diameter, plastic
PT618	Filter Paper, No 40, 11 cm diameter (100 Circles)